

## **AMENDMENTS TO THE SPECIFICATION**

Please revise the following title, before paragraph [0001] as follows:

### **~~FIELD OF THE INVENTION~~**

Please revise the following title, before paragraph [0002] as follows:

### **~~BACKGROUND OF THE INVENTION~~**

Please revise the following title, before paragraph [0006] as follows:

### **~~SUMMARY OF THE INVENTION~~**

Please revise the following title, before paragraph [0015] as follows:

### **~~DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS~~**

Please replace Paragraphs [0018] and [0020] with the following paragraphs rewritten in amendment format:

**[0018]** Because the transponded forward link signal 20 is typically of a much lower power level than the forward link signal 18 (often 10 times – 20 times lower), the transponded forward link signal 20 is much more susceptible to being negatively influenced by atmospheric conditions such as rain, snow, etc. as it is received by the mobile platforms and the terrestrial communications station 12. Rain, in particular, can significantly attenuate and otherwise negatively influence the forward link 18 signal. The transponded forward link 48 20 signal received by the terrestrial station 12 can also be negatively affected by residual noise present in various electronic components being used to process the signals received by the terrestrial communications station 48 12. As a result, the Eb/No information derived via the transponded forward link signal 48 20

can be significantly influenced by atmospheric conditions, as well as by noise in various electronic components that are used to process this information.

**[0020]** With further reference to Figure 1, a noise generating system 27 is provided for introducing a known quantity of noise into the transponded forward link signal 20 after it is received by the terrestrial communications station 12. The system 27 includes a signal generator 28, a noise source 30 and a mixer 32. Noise source 30, in one implementation, comprises a 500 MHz bandwidth noise signal. Signal generator 28, in one preferred implementation, comprises an L-band local oscillator that is able to translate the 500 MHz noise source 30 to the 950MHz - 1450 MHz L-band spectrum.